

# **PATIENT TELEMETRY DEVICE WITH AUTO-COMPENSATION FOR IMPEDANCE CHANGES IN LEADSET ANTENNA**

## Abstract of the Disclosure

5           Various designs and features of an ambulatory transceiver and ECG lead set are disclosed for use in remote patient monitoring. One feature involves the use of unshielded, dual-conductor lead wires in which one conductor carries the patient's ECG signal and the other conductor provides an RF antenna element for the transceiver. The lead wires used in one embodiment provide improved flexibility, durability, and antenna  
10 performance over conventional lead sets with shielded wires. Another feature involves an antenna diversity scheme in which the transceiver switches between two or more ECG-lead antennas, each of which is formed from one or more ECG leads of the lead set. Another feature involves the use of a circuit within the transceiver to monitor, and dynamically compensate for changes in, the impedance of an ECG-lead antenna or a  
15 conductor thereof. Another feature is an improved circuit for protecting the transceiver from damage caused by defibrillation pulses.

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